AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in this application:

LISTING OF CLAIMS:

Claims 1 to 13. (Canceled).

14. (Currently Amended) A method, comprising:

producing one of (a) first cutting paths and (b) ancillary cutting paths with a spherical cutter having a tool head radius corresponding to a tool shank radius, and producing second cutting paths for the cutting tool from the one of (a) the first cutting paths and (b) the ancillary cutting paths, and

cutting freeform surfaces on a workpiece by a cutting tool to achieve a desired freeform surface, the cutting tool including a tool head and a tool shank, the tool head having a greater radius than the tool shank, the cutting including moving the cutting tool along at least one defined cutting path relative to the workpiece ~~,~~ ~~producing one of (a) first cutting paths and (b) ancillary cutting paths with a spherical cutter having a tool head radius corresponding to a tool shank radius, and producing second cutting paths for the cutting tool from the one of (a) the first cutting paths and (b) the ancillary cutting paths~~.

15. (Previously Presented) The method according to claim 14, wherein the cutting includes five-axis cutting.

Claim 16. (Canceled).

17. (Previously Presented) The method according to claim 14, wherein each first cutting path includes a plurality of support points.

18. (Previously Presented) The method according to claim 17, wherein the cutting includes producing normal vectors of a workpiece surface for each support point of the one of (a) the first cutting paths and (b) the second cutting paths.

19. (Previously Presented) The method according to claim 18, wherein the second cutting paths are produced in the second cutting points producing step by shifting the support points of the first cutting paths relative to corresponding normal vectors.

20. (Previously Presented) The method according to claim 19, wherein the support points are shifted in the shifting step by a difference between the radius of the tool head of the spherical cutter and the radius of the tool head of the cutting tool.

21. (Previously Presented) The method according to claim 14, wherein the cutting includes defining the radius of the tool head of the spherical cutter, a radius center point of the tool head of the spherical cutter, the radius of the tool head of the cutting tool and a radius center point of the tool head of the cutting tool in a tool coordinate system, an original of the tool coordinate system corresponding to a tool reference point in which an axis of the cutting tool intersects on end of the tool head.

22. (Previously Presented) The method according to claim 21, wherein the second cutting paths are produced in the second cutting paths producing step by shifting support points of the first cutting path by a difference between the radius of the spherical cutter and the radius of the cutting tool by coordinates of corresponding radius center points.

23. (Previously Presented) A cutting tool, for cutting freeform surfaces on a workpiece, comprising:

a tool shank; and

a tool head;

wherein a radius of the tool head is greater than a radius of the tool shank and smaller than a smallest radius of curvature of the freeform surface.

24. (Previously Presented) The cutting tool according to claim 23, wherein the cutting tool is arranged as a five-axis cutting tool.

Claim 25. (Canceled).

26. (Previously Presented) The cutting tool according to claim 23, wherein the tool head does not protrude laterally beyond a lateral surface of the tool shank.

27. (Previously Presented) A method, comprising:

manufacturing a rotationally symmetric component by cutting freeform surfaces on a workpiece with a cutting tool, the cutting tool including a tool shank and a tool head, a radius of the tool head greater than a radius of the tool shank and smaller than a smallest radius of curvature of the freeform surface.

28. (Previously Presented) The method according to claim 27, wherein the rotationally symmetric component includes one of (a) a disk-shaped component, (b) a ring-shaped component and (c) a rotor disk having integrated blading.